## Summary

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The invention relates in particular to a process for the determination of the PMD-induced outage probability of an optical transmission system.

For this purpose the invention proposes a process whereby during a specified/specifiable observation period (Ttotal), the polarization states of the optical transmission system the optical signals transmitted by the optical transmission system are changed by applying a targeted intervention in at least one position of the transmission line (10, 11, 12, 13a, 13b, 14, 15, 20), and at a second position which is interposed at least one place downstream from the first position of the optical transmission line (10, 11, 12, 13a, 13b, 14, 15, 20), a specified/specifiable signal characteristic (BER) is qualitatively measured and checked specified/specifiable threshold adherence to a condition (BERth) and the PMD-induced outage probability of the optical transmission system is calculated on the basis of the ratio between the length of that share of the time (Tout), during which the measured signal characteristic fails to meet threshold condition (BERth), to the length observation period (Ttotal).

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